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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,345	05/18/2001	Hilmar Franke	FA-1010	6864

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E I du Pont de Nemours & Company
Legal Patents
Wilmington, DE 19898

EXAMINER
BLANTON, REBECCA A

ART UNIT	PAPER NUMBER
1762	6

DATE MAILED: 10/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

(WA)-6

Office Action Summary	Application No.	Applicant(s)	
	09/856,345	FRANKE ET AL.	
	Examiner	Art Unit	
	Rebecca A. Blanton	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f)

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shvartsman (EP 0 439 050 A2).

Shvartsman disclose a process for making an optical image element by applying a curable film to the surface of a transparent substrate, embossing the coated surface by pressing it with an embossing die and then passing actinic radiation through the transparent substrate so as to cure the film while it is contact with the embossing die, and then separating the die from the photohardened film (abstract). Shvartsman does not specifically teach the relief pattern of the die, however the pattern of the die impresses a desired pattern upon the surface of the substrate. The pattern formed on the substrate is a design choice, and is selected by the manufacturer to serve the appropriate purpose. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select a die press with a certain relief pattern that forms the specified pattern on the substrate when pressed onto a curable film coated substrate, followed by subjecting it to actinic radiation to cure the film and removing the die, as taught by Shvartsman.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shvartsman (EP 0 439 050 A2) as applied to claim 1 above, and further in view of Arai et al. (U.S. 4,310,370).

Shvartsman discloses a process for embossing a curable film on a transparent substrate followed by subjecting it to actinic radiation that passes through the substrate, as disclosed above. Shvartsman does not teach that the radiation passes through a transparent die, however Arai et al. disclose the process of forming a transparent die plate (abstract and column 12 lines 14-20). Arai et al. teach that the transparent die plate can be used to emboss other surfaces by pressing the plate against a curable

layer on another substrate that may or may not be transparent (column 12 lines 14-20). Arai et al. additionally teach that the curable film may be cured by exposure to UV radiation during the pressing process (column 12 lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to expose the curable coating to UV radiation by passing it through a transparent die plate that is contacted under pressure to the curable film in view of the teachings of Shvartsman to cure the coating by passing the radiation through a transparent surface and in further view of the teachings of Arai et al. of embossing a coating on a substrate by pressing it with a transparent die plate.

Regarding claims 3-4, Shvartsman teaches that the curable film is cured by exposure to actinic radiation; however, the reference does not specifically disclose the wavelengths at which the curable film is cured. The wavelength is a known result effective variable, wherein if the wavelength is too low the film will cure slowly or not at all and if the wavelength is too high the film may be damaged. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum wavelength of the radiation used to cure the embossed film coating, taught by Shvartsman, through routine experimentation and in the absence of unexpected results.

Referring to claim 5, Shvartsman discloses a process for embossing a coating by pressing it with a die plate and then exposing it to actinic radiation. Shvartsman makes no mention of using thermal radiation to cure the coating. However, Arai et al. discloses a process of forming a curable coating on a substrate followed by pressing it under

pressure to form a patterned layer on the substrate (abstract and column 11 lines 5-65). Arai et al. teach that the curable coatings may be cured by irradiation by light or thermal curing (column 12 lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a thermally curable film to form the decorative layer on the substrate, as taught by Shvartsman, in view of the teachings of Arai et al. that thermally curable coatings may also be formed by a embossing process as radiation curable coatings, and to thermally cure the embossed coating to form a decorative layer on the substrate.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shvartsman (EP 0 439 050 A2) as applied to claim 1 above, and further in view of Soeding (U.S. 4,126,726).

Shvartsman discloses a process for embossing a curable film on a transparent substrate followed by subjecting it to actinic radiation that passes through the substrate, as disclosed above. However, Shvartsman does not disclose the process of coating the embossed film with a transparent layer following the embossing process. Soeding discloses a process for forming an embossed surface that is formed by pressing the surface with a die plate, wherein the curable embossed coating is then cured by exposure to UV radiation (abstract and column 1 lines 65-68 and column 2 lines 1-9). Soeding teaches that the embossed surface is coated with a transparent material following the embossing process, so as to form a protective coating on the embossed layer (column 2 lines 3-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a transparent coating on the embossed

surface formed by pressing a curable film with a die plate, followed by exposing it to actinic radiation, and then releasing the die plate from the film, as taught by Shvartsman, wherein the transparent serves to protect the embossed layer, as taught by Soeding.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shvartsman (EP 0 439 050 A2) as applied to claim 1 above, and further in view of Yin et al. (U.S. 4,978,593).

Shvartsman discloses a process for embossing a curable film on a transparent substrate followed by subjecting it to actinic radiation that passes through the substrate, as disclosed above. The embossed surface disclosed by Shvartsman is a hologram (abstract). Shvartsman does not disclose using the embossed substrate for decoration of a motor vehicle or parts thereof. Yin et al. discloses a process for forming holograms on transparent surfaces, wherein the hologram is used on a car windshield (abstract). Yin et al. teach that the hologram is formed by first placing the film onto a substrate followed by forming the hologram, which is then laminated to the windshield surface (column 1 lines 35-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a hologram material by the process of embossing a film on a substrate by pressing it with a die plate and exposing it to actinic radiation, taught by Shvartsman, and to apply the embossed film to a car windshield, in view of the teachings of Yin et al. that hologram films are applied to car windshields to provide playback coatings on the windshields.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca A. Blanton whose telephone number is 703-605-4295. The examiner can normally be reached on M - F (7:30am - 3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

rab
October 7, 2002

MICHAEL BARR
PRIMARY EXAMINER